

State Air Pollution Control Board
629 East Main Street, P.O. Box 1105, Richmond, VA 23218.

May 21, 2007

Att: [Ms. Monica Harvey](#)

Regarding: Comments concerning Operating Permit for the Mirant
Potomac River Generating Station.

Dear Mr. Chairman and members of the State Air Pollution Control Board

Please find enclosed our comments and concerns.

Sincerely

Connie Graham and
Poul Hertel

1217 Michigan Court
Alexandria Virginia, 22314

Dear Mr. Chairman and members of the State Air Pollution Control Board

Please find enclosed our comments and concerns.

Sincerely

Connie Graham and
Poul Hertel

To the Chairman and members of the State Air Pollution Control Board:

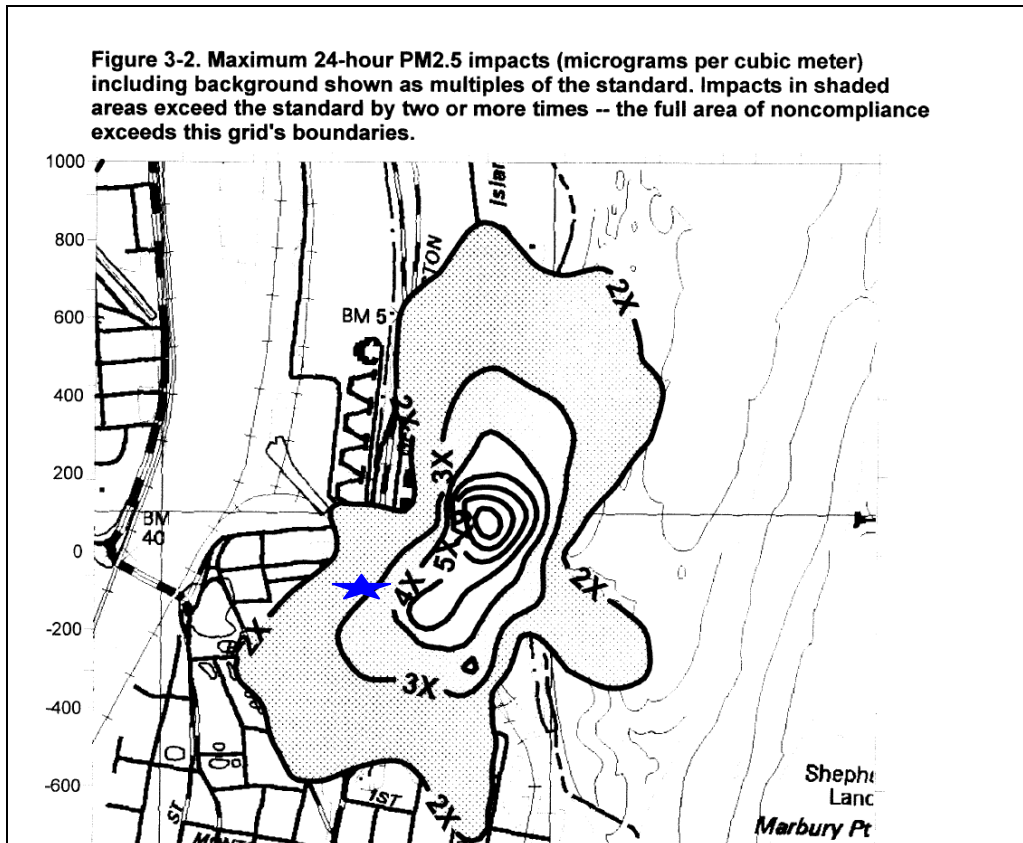
We ask that you do not compromise our health for the sake of regionalism or plant profitability!

We live on 1217 Michigan Court, at the northeastern end of Alexandria, which is situated within ¼ mile of the plant, and according to both the Mirant and City of Alexandria studies, this area is impacted by the downwash effects of the Potomac River Generating Plant (see blue star in the Aero Engineering Report page 3-6). Although we show the Pm 2.5 effect, the report shows that both NOx and So2 exceedences affect us as well. We are, in effect, at Ground Zero for potentially harmful emissions. We would like to bring some of our concerns to your attention, they are as follows:

Do not compromise our health for the sake of regionalism or plant profitability.

- DEQ/EPA mandate is the protection of public health not plants “profitability”.
- EPA protocols are being bent and replaced by technically dubious arguments to assure plants continued operation.
- Reliance on wing and a prayer technique with questionable health effects, like trona injection at a scale never tried before.
- Abandonment of standard EPA protocol to ensure “profitability of plant”. Only facility in America were this is being done.

We live on 1217 Michigan Court situated within ¼ mile of the plant, and according to both the Mirant and City of Alexandria studies, we are impacted by the downwash effects of the Potomac River Generating Plant (see blue star in the Aero Engineering Report page 3-6).



(1) The use of and placement of monitors is insufficient:

Need to use EPA modeling protocol and not rely on 6 monitors that will only give a fractional view of the effects of the plant on the surrounding neighborhood.

We have a concern about the number of monitors and what they are measuring. NAAQS exceedences should use EPA modeling, since the current six monitors will only give a fractional view of the effects of the plant on the surrounding neighborhood. The Permits specify the placement of the six monitors under the assumption that they will capture any conceivable NAAQS violation regarding SO₂. By relying solely on these monitors, the permits are making assumptions that cannot be borne out scientifically, and do so for the specific purpose of ensuring continued plant operations. Moreover, this permit also does not account for PM_{2.5} or even PM₁₀.

We are concerned about this aspect of monitoring, because the plant's boilers have an average age of 53.8 years, and our neighborhood is subjected to downwash that is caused by the plants diminutive smokestacks. To be protective of health, EPA protocol relies on modeling in order to set limits that are sufficiently low in order to ensure that the plant does not violate the NAAQS all around a plant, not just on the six monitoring spots.

These monitors, as stated by DEQ, Mirant and Board members, are placed where the maximum effects are to be expected. If there are any problems, the six monitors will catch it. However, this assumption belies a fundamental ignorance of modeling, and is far removed from scientific method. It is quite conceivable that some areas are subjected to NAAQS violations while the monitors register no problems, because the wind direction and weather conditions can cause the downwash to bypass the monitor locations.

(2) The assumptions regarding monitors do not provide an accurate portrayal of the conditions:

During the predictive modeling phase of the ACO, the post modeling suggested 22 NAAQS violations, of which one was monitored. By only maintaining six monitors, and doing so to the exclusion of the South and West areas of Alexandria gave a false view of what was happening for conditions in which the wind blew south or west. Furthermore, wind is not the only factor; some conditions can even cause the monitors to be bypassed even if the wind is blowing in their direction.

Modeling provides a probabilistic view of potential outcome that over time approaches certainty. This means that over time, (which could be a very long time), the ex post data will match the probability of the model, but it is not advisable to base observations from a few monitors and expect a realistic view of events around the entire plant in the short run. To use this technique is commonly referred to as using a "fixed point estimate," but assuming that all is well if the six monitors are not showing problems is not scientifically correct. This is the equivalent of stating that we do not need to monitor the U.S. economy because we are measuring the Chinese, since it is the fastest growing one.

Yet, there still is a presumption in the permits that downwash is like water flowing into a tub, it does so equally. It does not, and that is why EPA modeling protocols were set up, to ensure that people's healths are adequately protected.

(3) The use of Trona should be prohibited

Specific language in the Permit reads that: "SO₂ Emission Controls - SO₂ emissions from boilers C1, C2, C3, C4, and C5 shall be controlled by the use of low sulfur coal and Trona injection. The permittee shall maintain and operate a Trona injection system on all five units at the facility. The permittee shall inject Trona into the exhaust stream of each unit while the unit is operating. (9 VAC 580850, 9 VAC 580800. C.2 and 9 VAC 580820."

However, as stated previously, our neighborhood is subjected to downwash that is caused by the Plant's diminutive smokestacks. Use of Trona at the levels contemplated at this Plant is an untried method, intended to deal with downwash issues, but which might have serious health repercussions of its own. Since our neighborhood is being subjected to downwash, we will be breathing the Trona as well.

- (4) The City of Alexandria should be a recipient of all documents and information that pertain to activities concerning the Mirant plant, and this data should be kept for a period longer than five years.

Since Alexandria residents living around the plant may have potentially adverse health effects from the activities of the plant, we urge you to include the City as a recipient of any information regarding activities of the plant. In addition, we ask that you notify the City of Alexandria in cases of malfunction. In such situations, a modeling evaluation including post weather shall be provided to the City of Alexandria. In addition, any monitoring data should be kept for longer than five years, since modeling assumptions are based on longer time intervals. We need assurances that the data will not be destroyed after six years, but that a system is in place that assures it remains intact and accessible for longer period. Since downwash is still with us, a complete record regarding what the effects of the plant are on the population will require complete data.

- (5) Permit One, Point 12 needs clarification.

The language in this Permit currently sets an opacity limit for one hour at 30 percent, which was not the intent of the permit. This language currently reads: "Visible Emission Limit: Visible emissions from the boilers C1, C2, C3, C4, and C5 shall not exceed 20 percent opacity except during one six minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction." Request that language be clarified to refer to the six-minute interval. We do not see why a six minute pass is needed, and we would like to see it be a violation instead of giving the plant a 30 percent opacity limit.

Conclusion

We currently feel that the DEQ/EPA mandate is being abrogated. The DEQ/EPA should be advocates for the protection of public health, not for the "profitability" of a given Power Plant. EPA protocols appear to be replaced by technically dubious arguments to assure the Power Plant's continued operation. There is a reliance on a "wing and a prayer" technique with some questionable health effects, such as injection of Trona at a scale never tried before. This is the only facility in America where profit is the overriding consideration. It is time now to consider the health of citizens and the state of the environment.

Sincerely

Mr. and Mrs. Poul Hertel